

Application No. 09/699,224  
Reply dated July 28, 2005  
Response to Office Communication of January 28, 2005

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in this application.

**Listing of Claims:**

Claim 1 (currently amended): An isolated peptide mimic of a conserved gonococcal lipo-oligosaccharide (LOS) epitope not found on human blood group antigens, wherein said peptide mimic is capable of inducing in a mammal an immune response against said conserved gonococcal lipo-oligosaccharide (LOS) epitope and wherein said peptide mimic is less than 50 amino acids in length.

Claim 2 (currently amended): The peptide mimic according to claim 1, wherein the amino acid sequence of the peptide mimic comprises the sequence peptide mimic comprises the amino acid sequence of SEQ ID NO:8.

Claim 3 (original): The peptide mimic according to claim 1, wherein the immune response is T-cell dependent.

Claim 4 (original): The peptide mimic according to claim 1 or 2, wherein the amino acid sequence of the peptide mimic comprises cysteine residues at each terminus.

Claim 5 (currently amended): The peptide mimic according to claim 4, wherein a cyclic peptide is formed through disulfide bridges between the cysteine residues at each terminus of said amino acid sequence.

Application No. 09/699,224  
Reply dated July 28, 2005  
Response to Office Communication of January 28, 2005

Claim 6 (previously amended): The peptide mimic according to claim 5, wherein the peptide mimic is coupled to a second agent.

Claim 7 (original): The peptide mimic according to claim 6, wherein the second agent is an adjuvant.

Claim 8 (original): The peptide mimic according to claim 1 or 2, wherein the peptide mimic further comprises an adjuvant or a carrier protein.

Claim 9 (previously presented): The peptide mimic according to claim 1 or 2, wherein the peptide mimic is part of a multiple-antigen peptide (MAP).

Claim 10 (original): The peptide mimic according to claim 1 or 2, wherein said peptide mimic competes with gonococcal lipooligosaccharide (LOS) for binding to monoclonal antibody 2C7.

Claim 11: Cancelled.

Claim 12 (currently amended): The peptide mimic according to claim 1, wherein the peptide mimic immunospecifically binds to monoclonal antibody 2C7.

Claim 13 (currently amended): The peptide mimic according to claim 1, wherein the peptide mimic immunospecifically binds to a monoclonal antibody produced by immunizing a mammal with an anti-idiotypic monoclonal antibody, or antigen-binding fragment thereof, produced by a

Application No. 09/699,224  
Reply dated July 28, 2005  
Response to Office Communication of January 28, 2005

hybridoma cell line having the specific immunological reactivity of monoclonal antibodies produced by hybridoma cell line HB 11311 as deposited with the ATCC.

Claim 14: Cancelled.

Claim 15 (previously presented): A composition for immunizing against *N. gonorrhoeae* infection comprising an immunoprophylactically effective amount of a peptide mimic according to any one of claims 1-3, 5-7, 9, 12 or 13.

Claim 16 (currently amended): A composition for immunizing against *N. gonorrhoeae* infection comprising an immunoprophylactically effective amount of a peptide mimic comprising the amino acid peptide sequence of SEQ ID NO:1.

Claim 17 (withdrawn): A composition for immunizing against *N. gonorrhoeae* infection comprising an immunoprophylactically effective amount of a peptide mimic comprising the peptide sequence of SEQ ID NO:2.

Claim 18 (withdrawn): A composition for immunizing against *N. gonorrhoeae* infection comprising an immunoprophylactically effective amount of a peptide mimic comprising the peptide sequence of SEQ ID NO:3.

Claim 19 (withdrawn): A composition for immunizing against *N. gonorrhoeae* infection comprising an immunoprophylactically effective amount of a peptide mimic comprising the peptide sequence of SEQ ID NO:4.

Application No. 09/699,224  
Reply dated July 28, 2005  
Response to Office Communication of January 28, 2005

Claim 20 (withdrawn): A composition for immunizing against *N. gonorrhoeae* infection comprising an immunoprophylactically effective amount of a peptide mimic comprising the peptide sequence of SEQ ID NO:5.

Claim 21 (withdrawn): A composition for immunizing against *N. gonorrhoeae* infection comprising an immunoprophylactically effective amount of a peptide mimic comprising the peptide sequence of SEQ ID NO:6.

Claim 22 (withdrawn): A composition for immunizing against *N. gonorrhoeae* infection comprising an immunoprophylactically effective amount of a peptide mimic comprising the peptide sequence of SEQ ID NO:7.

Claim 23 (withdrawn): A composition for immunizing against *N. gonorrhoeae* infection comprising an immunoprophylactically effective amount of a peptide mimic comprising the peptide sequence of SEQ ID NO:10.

Claim 24 (withdrawn): A method for immunizing a mammal against *N. gonorrhoeae* infection comprising the step of administering to said mammal an immunoprophylactically effective amount of a peptide mimic according to any one of claims 1-3 and a pharmaceutically acceptable carrier.

Claim 25 (withdrawn): A method for immunizing a mammal against *N. gonorrhoeae* infection comprising the step of administering to said mammal an immunoprophylactically effective

Application No. 09/699,224  
Reply dated July 28, 2005  
Response to Office Communication of January 28, 2005

amount of a peptide mimic according to any one of claims 11-14 and a pharmaceutically acceptable carrier.

Claim 26 (withdrawn): The peptide mimic according to claim 1 or 11, wherein the peptide mimic is coupled to a complement protein.

Claim 27 (withdrawn): The peptide mimic according to claim 26, wherein the peptide mimic is coupled to complement protein C3d.

Claim 28 (withdrawn): A method for immunizing a mammal against *N. gonorrhoeae* infection comprising the step of administering to said mammal an immunoprophylactically effective amount of a peptide mimic according to claim 27 and a pharmaceutically acceptable carrier.

Claim 29 (withdrawn): A composition for immunizing against *N. gonorrhoeae* infection comprising an immunoprophylactically effective amount of a peptide mimic according to claim 27.

Claim 30 (withdrawn): A method for increasing the antigenicity of a peptide mimic according to claim 1 or 11 comprising the step of coupling said peptide mimic to a complement protein.

Claim 31 (withdrawn): The method according to claim 30, wherein the complement protein is C3d.